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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,383	10/27/2003	Ralph James	501328.01 (30313/US)	5301
7590	12/27/2005			EXAMINER
Edward W. Bulchis, Esq. DORSEY & WHITNEY LLP Suite 3400 1420 Fifth Avenue Seattle, WA 98101				WALTER, CRAIG E
			ART UNIT	PAPER NUMBER
			2188	
			DATE MAILED: 12/27/2005	

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/695,383	JAMES, RALPH
	Examiner	Art Unit
	Craig E. Walter	2188

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 17 October 2005.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-57 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-57 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 27 October 2003 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 10/17/05, 6/24/05, 5/23/05, 11/13/04,
- 4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_.

## DETAILED ACTION

### *Information Disclosure Statement*

1. The nine information disclosure statements (IDS) submitted on 17 October 2005, 24 June 2005, 23 May 2005, 18 November 2004, 15 July 2004, 14 May 2004, 12 February 2004, 21 January 2004, and 27 October 203 have been fully considered by the Examiner.
2. The information disclosure statement filed 19 November 2004 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. More specifically, the English translated abstract for reference JP 2-112317 is not legible, hence could not be considered by the Examiner (page 10 of 14, line JP of form PTO-1449).

### *Drawings*

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

4. The abstract of the disclosure is objected to because extraneous markings are present (i.e. "h:\ip\documents\clients\...file.doc"). Correction is required. See MPEP § 608.01(b).

***Claim Objections***

5. Claims 22-36, and 38-57 are objected to because of the following informalities:  
  
As for claims 22, and 38, the phrase "in the receiver" in line 2, and the phrase "in the receiver" in lines 3-4 should be omitted.

As for claim 40, it is of the Examiner's opinion that Applicant intended the claim to depend on claim 37 (rather than 23 as currently recited).

As for claim 53, the word "module" in line 5 should be changed to "system component".

Claims 23-36, 39, and 41-52, 54-57 are objected to as being dependant on one of the four aforementioned claims.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. Claims 3-6, 9-20, 23-32, 34-36, 39, 44, 48, and 50-52 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As for claims 3, 6, 12, 15, 26, and 29, there is no support in Applicant's specification for the clock generator receiving a reference clock signal having a lower frequency than the receive clock signal. Though paragraph 0027 of the specification recites using the reference clock to generate two internal clock signals having two times the frequency of the reference clock signal, it fails to describe receiving a reference clock signal having a lower frequency than the receive clock signal.

As for claims 5, 14, 28, and 44, there is no support in Applicant's specification for the formula for the data bits in the subsets as recited these claims.

As for claims 9 and 18, there is no support in Applicant's specification for generating a second predetermined data pattern (paragraph 0028 recites generating only one predetermined data pattern). Further, the specification does

support first and second data patterns, however it supports only one *predetermined* data pattern.

As for claims 20, 23, 39, there is no support in Applicant's specification for the first and second data patterns being identical to each other.

As for claims 34-36, and 50-52, there is no support in Applicant's specification for supporting a *second* upstream and *second* downstream data bus.

Claims depending on the claims rejected above inherit their deficiencies; hence those dependant claims are further rejected under 35 U.S.C. 112, first paragraph.

7. Claims 1-57 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

As for claim 1, Applicant recites "A data receiver coupled to received data at a data bus port" (line 1), however it would be unclear to one of ordinary skill in the art how a data receiver can be coupled to data itself, without the data being embodied on a medium, and the receiver being coupled to said medium. An acceptable correction could possibly be "A data receiver to receive data at a data port", for example. Claims 4, 9-11, 21, 24, 34, 36, 37, 40, 50, and 53 recite

similar limitations (i.e. coupling data itself to a physical entity (i.e. a pattern generator)), therefore they too are rejected under 35 U.S.C. 112, first paragraph.

The remaining claims not specifically listed above are further rejected for depending on one of the previously rejected claims.

As for claim 53, Applicant recites the step of first "capturing the data coupled to the memory module [system component]", then determining a final value, and finally "using the final value of the phase ... to capture the data coupled to the memory system component" after a determination step. It is unclear how the data can be captured (as recited in the first step), prior to the determination step, and then captured after the determination step. If determining the final value were necessary to capture the data, then the system would be unable to capture the data in the first step.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 21 and 37 recite the limitation "the receiver" in line 38 (of claim 21). Likewise they recite the limitation "the transmitter" in line 38 (of claim 21). There is insufficient antecedent basis for these limitations in the claims, as it is unclear whether the receiver recited in this line is the receiver belonging to the memory hub controller, or the memory module as recited previously within the claim. Likewise, it is unclear whether the transmitter recited in this line is the transmitter belonging to the memory hub controller, or the memory module as recited previously within the claim.

Further, the Examiner respectfully requests that Applicant clear up any potential confusion with respect to the claimed receivers and transmitters in the remaining claims. For example, in claim 37 (line 31), the claim recites “a receiver”, and later recites “the receiver” in the same line. Though the Examiner believes “the receiver” is referring to “a receiver” in this same line, it is possible to confuse “the receiver” (line 31) with the claimed “a receiver” recited in line 15.

Claims 22-36, and 38-52 are further rejected as being dependant on the previously rejected independent claims (21 and 37, respectively)

9. Claims 8, 17, 31, 47, and 55 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “substantially” renders the claims indefinite, as one of ordinary skill in the art would not be able to ascertain the metes and bounds of this claim limitation. Further, the specification provides no guidance as to how a phase of the receive clock signal can be “substantially intermediate the first and second phase values”.

### ***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Craig E. Walter whose telephone number is (571) 272-8154. The examiner can normally be reached on 8:30a - 5:00p M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mano Padmanabhan can be reached on (571) 272-4210. The fax phone

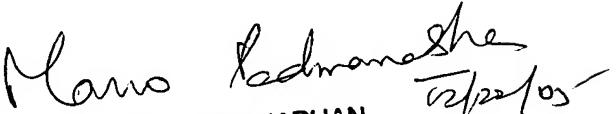
Art Unit: 2188

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Craig E Walter  
Examiner  
Art Unit 2188

CEW

  
MANO PADMANABHAN  
SUPERVISORY PATENT EXAMINER  
02/22/03